North American Drought Monitor − Discussion − June 2004

CANADA: In British Columbia, snowlines throughout the province have been higher than usual throughout the spring. Rains since April 1 have generally been plentiful in the interior agricultural regions of the province, between 50 and 60 percent of average in the southern coastal region and 60 to 90 percent of average in the north and British Columbia Peace River region. In much of the southern interior region of British Columbia groundwater levels are below average for this time of year. In the Okanagan, groundwater levels are below the historic minimum. Groundwater levels for bedrock wells on southern Vancouver Island are declining and at the historic minimum. On southern and central Vancouver Island, groundwater levels for surficial wells are declining and below average for this time of year. Forest fire numbers are greater than this time in 2003. The province is actively promoting water conservation.

In Alberta, lack of soil moisture reserves, particularly at the sub-surface level, some on-farm water supply shortages throughout the province and below average forage production potential in central northern and Peace River regions characterize the drought risk at this time. Surface moisture is adequate as a result of recent rains. Most major reservoirs in Alberta report lower than average storage volumes and river flow volumes are forecast to be below normal. Within some of the larger irrigation districts, reductions of normal water deliveries may occur. In Saskatchewan, many regions received adequate to excessive amounts of precipitation; however, the west central region close to the Alberta border continues to experience some water supply and soil moisture shortages. Pastures are still significantly impacted in the west central and northwest regions. There are no drought related issues in agricultural regions of Manitoba. Abnormally dry to moderate drought conditions are occurring in the Thompson - Gillam - Norway House region of northern Manitoba.

There are no abnormally dry conditions to report in Ontario and Quebec. The Great Lakes precipitation for May was about 194 % of average, with inflows to the lake being near record levels. The monthly mean levels of the Great Lakes, with the exception of Lake Ontario, remained below average but the lakes are above last year's levels.

In New Brunswick, there is some concern developing as water supplies are below normal. The precipitation has been near 70 percent of average since September 1. Much of the Atlantic region tends to be on the low side of average or abnormally dry.

A number of locations across the agricultural landscape have experienced lower than average temperature at this time resulting in delayed crop development by an average of nearly two weeks.

UNITED STATES: In June, heavy showers eased dryness across Florida, southwestern Georgia, and southeastern Alabama resulting in removal of D1 in northern and southern Florida, and D0 in much of the peninsula south of Gainesville except for the extreme south. According to the USDA, 6 percent of Georgia's pastures were rated very poor to poor on July 4, along with 11 percent of those in South Carolina.

During the past 30 days, excesses of 1 to 4 inches of rainfall were common in eastern sections of Florida, while western and Gulf areas observed over 4 inch surpluses. In addition, 7-day averaged USGS streamflow levels have also risen, with sites in the lower 25th percentile at the end of June in parts of eastern South Carolina. Accordingly, the North American Drought Monitor depiction for the Southeast improved by 1 category, except along the South Carolina central coast and in extreme southern Florida where rainfall was lighter and spottier (less than an inch).

Although light showers (0.2 to 0.7 inches) fell on southern and central Maine during the last week of the month, D0H was introduced in eastern Maine. This was due to 30- and 90-day deficits of 1 to 4 inches, January-May precipitation in the lowest 5th percentile, over half of the reporting USGS 7-day averaged (ending June 28) streamflow sites in the lowest 25th percentile, and corroborating short-term and long-term blended drought indices.

In the High Plains, additional showers resulted in some reduction of the D0/D1/D2 areas in the eastern Dakotas, but mostly dry weather caused expansion of D2 in western South Dakota and southwestern North Dakota. In the north-central High Plains, April through July are normally the wettest months. However, during the past 90 days, very dry weather has resulted in accumulated moisture shortages of 3 to 6 inches, expanding the severe drought, particularly in western South Dakota.

Cool temperatures and showery weather improved topsoil moisture levels for pastures and small grains in the northern High Plains, by lowering evapotranspiration rates which kept much of the area status-quo, despite underlying long-term drought. The long-term drought picture remained virtually unchanged across the remainder of the West. In central Washington, temperatures averaged 6 to 12°F above normal. In addition to the warmth, rainfall was mostly absent in the Pacific Northwest, California, and Desert Southwest. The extreme warmth and lack of rain extended abnormal dryness (D0) into much of Washington.

A new area of exceptional drought (D4) was introduced from southeastern Montana into western Nebraska. According to the USDA, Montana's topsoil moisture was rated 45 percent very short to short on July 4, an increase from 36 percent last month. D3 or worse conditions remained over much of southern Montana and portions of west-central Montana. Streamflows reached record lows for mid-June in parts of southeastern Montana. To the south, dry weather allowed D3 to expand in southern Wyoming.

Heavy rains in northern Texas removed D0 dryness in the north-central and northeastern areas, and removed D1 drought from eastern Oklahoma as well as the southern Texas

Panhandle, but D1 drought expanded eastward from southern New Mexico into the southern High Plains of west Texas, where little rain has fallen during the past 2 months. Short-term heat and dryness continued to take a toll on dryland summer crops.

There was some expansion of moderate to severe drought (D1 to D2) across parts of New Mexico, where significant rain last fell in early April. According to the USDA, on June 20 New Mexico ranges/pastures were rated 60 percent very poor to poor. New Mexico's topsoil moisture was reported as 78 percent very short to short, worse than the drought-influenced 5-year average of 71 percent. In Albuquerque, New Mexico, June 21 marked the 72nd consecutive day without measurable rain. The streak, Albuquerque's fifth-longest on record and longest since March-May 1996, ended with a 0.01-inch rainfall on June 22. The Peppin Fire near Capitan, New Mexico, was nearly contained by June 22 but had charred nearly 65,000 acres of vegetation. Other fires larger than 5,000 acres were reported near Mesquite, Nevada, and Alpine, Arizona. In southeastern Arizona, many ranchers were hauling water for cattle as most stock ponds were dry. Wildfires remain a big concern in the West, with several active large fires in Arizona (5), Washington (3), California (2), Nevada (2), Utah (1), and New Mexico (1) on June 29, according to the NIFC in Boise, Idaho.

Record to near-record warmth persisted across much of the eastern half of Alaska as temperatures averaged 5 to 13°F above normal, and numerous daily record highs were broken as readings soared into the 80ºF's. Even though the Alaskan interior was unseasonably wet during May, the recent heat, lack of rain, and gusty winds have aided several large wildfires north and east of Fairbanks, from near Ft. Yukon southward to Tok. As a result, D0A was added to reflect the sudden surge in wildfire danger and activity.

MEXICO: Wet conditions continued in June across a wide section of Mexico. The National Meteorological Service reported that the period from January to June 2004 is the second wettest period since 1941, for the entire country, second only to the year 1981. In June, rainfall remained above normal in many areas in central and northern sections of the country, particularly from southern Coahuila to Jalisco including Zacatecas, Aguascalientes and San Luis Potosi. In contrast, conditions were drier than normal across much of the inland portions of the Yucatan Peninsula, reflecting low tropical storm activity in the Atlantic Basin.

In the Yucatan Peninsula, D0 shifted from the northeastern corner of Yucatan and expanded into the inland areas of Yucatan, Campeche, Quintana Roo, Chiapas and Tabasco and stopping at the southeastern edge of Veracruz. In northwestern Mexico the status of D0 in northern Sinaloa was removed due to recent wetness associated with a strong monsoon system. No major changes were made over the northern portion of the Baja California peninsula and northern Sonora and Chihuahua, where D0 and D1 conditions continued.